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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,607	06/27/2001	Martin Bergenwall	P 281524 2980567US/A/kop	8827
909	7590	03/03/2005	EXAMINER	
PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102			JAGANNATHAN, MELANIE	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 03/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/891,607

Applicant(s)

BERGENWALL ET AL.

Examiner

Melanie Jagannathan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-10 and 12-19 is/are rejected.
- 7) ☐ Claim(s) 3 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/27/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: a period needs to be inserted between the number 10 and "A". Appropriate correction is required.
2. Claim 12 is objected to because of the following informalities: Examiner requests claim 12 be shifted over to be aligned with rest of claims on page 14. Additionally, Examiner would appreciate deletion of extra spaces in line 1 of claim 12. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 4-10, 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Raychaudhuri et al. US 5,684,791.

Regarding claims 1, 4, 7-9, 12, 14-15, 17-18, the claimed transmitting transparent data requiring a substantially constant transmission delay and a substantially constant bit rate over a connection between transmitting and receiving ends is disclosed by medium access control methods that provide relatively transparent multiservices capabilities and communication between mobile terminal and base station (Figure 1). See column 2, lines 1-6, and lines 33-61. The claimed assigning to connection bandwidth wider than bandwidth required by a nominal bit rate is disclosed by constant bit rate data link control using additional on-demand bandwidth

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supported by media access control's ABR mode for retransmission of lost cells thus maintaining nominal constant bit rate stream's bandwidth. See column 10, lines 1-9. The claimed utilizing a retransmitting transmission protocol is disclosed by radio link for wireless channel specific protocol layers—media access control, data link control and wireless network control for retransmission of erroneous cells. See column 2, lines 14-67 and column 3.

Regarding claims 2, 10, 19, the claimed buffering transmitted data at transmitting end is disclosed by buffer at transmission end (Figures 2,5, Tx data buffer). The claimed retransmitting the data corrupted during transmission over connection and requested by receiving end is disclosed by cells that are not positively acknowledged by receiving station are retransmitted at next available opportunity. See column 8, lines 4-25, column 10, and lines 9-63. The claimed buffering the received data at the receiving end and forwarding the buffered data at a constant bit rate meeting the bit rate and delay requirements of the data is disclosed by buffer at receiving end (Figures 2,5, Rx data buffer) and constant bit rate data link control using additional on-demand bandwidth supported by media access control's ABR mode for retransmission of lost cells thus maintaining nominal constant bit rate stream's bandwidth. At the transmitting station, cells arrive with almost constant interarrival times but at the receiving station, some cells could be lost and have to retransmitted and thus not arrive with constant times so FIFO buffer is manipulated so the output at receiving station closely resembles input process of transmitting station. See column 10, lines 9-63. The claimed forwarding from receiving end the incorrectly received data when the bit rate and delay requirements of data do not allow to wait for retransmission of data and forwarding the uncorrupted data otherwise is disclosed by ABR traffic wait without any specific time limit to recover lost cells by retransmission but CBR impose a

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time limit for recovery of lost cells and any cells not recovered within specified time limit are considered lost. See column 7, lines 61-67, column 18, lines 1-3, column 10, and lines 34-63.

Regarding claims 5, 13, the claimed assigning wider bandwidth to connection or using the assigned bandwidth dynamically on demand is disclosed by constant bit rate data link control using additional on-demand bandwidth supported by media access control's ABR mode for retransmission of lost cells thus maintaining nominal constant bit rate stream's bandwidth. See column 10, lines 1-9.

Regarding claims 6, 16, the claimed connection is between a subscriber station and network element over an air interface in a wireless communications system is disclosed by communication between mobile terminal and base station. See Figure 2.

Allowable Subject Matter

5. Claims 3, 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art of record does not disclose, in single or in combination, the claimed transmitting data without waiting for an acknowledgment for previous data if transmitting buffer fills up to a predetermined level, in order to avoid receiving buffer becoming empty in combination with other limitations of the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Widegren et al. US 6,374,112 disclose flexible radio access and resource allocation in UMTS.

Ahmedvand US 6,477,670 discloses data link layer quality of service for UMTS.

Leppisaari et al. US 6,717,925 disclose point-to-multipoint mobile radio communication.

Huusko US 6,674,733 discloses determining bearer services in a radio access network.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 571-272-3163. The examiner can normally be reached Monday-Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3163.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ




FRANK DUONG
PRIMARY EXAMINER